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# Crop Varieties and Seed Outlook for 1966

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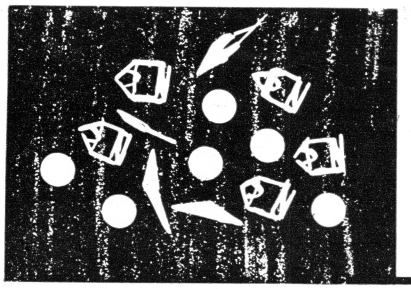

# Crop Varieties and Seed Outlook for 1966

**Alfalfa seed supply below a year ago but above 1965 use. Certified soybean seed supplies 75 percent above last year. Supplies of certified oat seed will be down 25 percent from last year.**

***by H. E. Thompson***

IN 1965 consumption of forage crop seed increased for the second year in a row. Greater use of alfalfa was largely responsible for this increase.

*The supply of all forage crop seed commonly used in Iowa is equal to or greater than the amount planted in 1965.* Alfalfa seed supply is below a year ago, but this supply is considerably above the 1965 consumption. The supply of orchardgrass seed will cover our planting needs with good distribution. There are no government reports on birdsfoot trefoil seed production. Renewed interest in this crop could result in a shortage of seed again this year.

Supplies of certified soybean seed will be about 75 percent larger than a year ago. Despite the large increase in production of certified soybean seed, there still won't be enough available to plant the acreage that should be planted to certified soybeans this year. Supplies of certified oat seed will be 25 percent lower than a year ago.

Hybrid seed corn companies reported good yields of seed corn last fall. There will be plenty of seed corn for 1966 planting. However, some popular new hybrid numbers are already sold out.

Prices of seed for planting in 1966 will vary both up and down compared to a year ago. The prices for oats and corn will be about the same as last year. Soybean seed prices for the older varieties will also be about the same as last year. Prices for new varieties, such as Wayne, will be two to three times that of the older varieties.

Prices paid for red clover, birdsfoot trefoil, bromegrass, orchardgrass, and sorghum-sudangrass crosses will be about the same as a year ago. Ladino clover seed will be down about $2 per hundred pounds. Alsike clover will be down about $5 and timothy down about $7. Alfalfa will be up $2.50 per hundred pounds; tall fescue will be up $1; reed canarygrass will be up $20; and sudangrass will be up $1.

Seed prices will not be any lower at planting time than they are now. Therefore, it is a good idea to get your seed order in now while the varieties or hybrids that you want are still available.

## Corn

In the last two or three years, more good, new corn hybrids have been available to Iowa farmers than ever before. An even better selection will be offered in 1966. The problem of which hybrid to choose can be frustrating to the individual farmer. Hybrid corn companies have information on their hybrids which will be helpful in selecting hybrids for your farm. Not all salesmen, however, will understand your specific problems.

The Annual Iowa Corn Yield Test bulletin can help you in choosing a hybrid to fit your needs. This publication will be available in mid-February from your county extension office.

## Grain Sorghums

Grain sorghums have a place on many Iowa farms. When conditions are unfavorable for corn, such as especially dry weather or late season planting, grain sorghum is highly competitive. Grain sorghum is more likely to compete successfully with corn in western and southern Iowa than in other parts of the state. A few good early hybrids are now available which should make grain sorghum a good crop in northwest Iowa.

Before planting grain sorghum, be sure that harvesting, drying and storage facilities are available and suitable. A detailed report on the performance of sorghum varieties and hybrids is available at your county extension office.

## Soybeans

In choosing a soybean variety for top yield, select one that uses the full growing season but reaches maturity before the average date of killing frost. The varieties suggested by areas will do this when planted at the normal dates.

Soybeans may be used as a replacement crop. If you face such a need, you can choose from a wide

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**Every year, different varieties of oats are planted at test locations over the state. Records are kept on characteristics such as yield, straw strength, height, resistance to plant diseases, test weight, etc. These plots are at the Iowa State University Agronomy farm near Ames.**

selection of varieties which may be planted later than normal and still mature in the remaining frost-free period. Yields from late plantings decrease about 1 percent for each day after May 31. Write to the Department of Agronomy at Iowa State University for special suggestions.

### Northern Iowa:

*Traverse*—Released to certified seed growers in 1965. Same maturity as Grant and yields about 1 bushel more. A week earlier than Chippewa and yields slightly less. Can be used when planting has been delayed.

*Chippewa*—A high yielding variety that matures nearly a week earlier than A100 but yields slightly less.

*A100*—Same maturity as Blackhawk and about a week later than Chippewa. Yields 1 to 2 bushels more than Chippewa.

*Harosoy*—A full season variety for northern Iowa. Higher in yield than Chippewa and A100 but lodges more and matures several days later than either. It matures about 5 days earlier than Hawkeye and yields slightly more.

*Lindarin*—Matures the same as Harosoy, averages 4 inches shorter, yields and lodges less and compares favorably with it in all other characteristics.

*Amsoy*—Released to certified seed growers in 1966. Highest yielding variety in its maturity class. Yields 4 to 5 bushels more than Harosoy and Hawkeye and matures midway between them. Better lodging resistance than Hawkeye or Harosoy. Amsoy should be planted in close rows or solid-drilled for highest yields.

*Hawkeye*—Best for southern and western counties of northern Iowa. Yields well, tall and lodging resistant. It matures about 3 days earlier than Adams.

### North-Central Iowa:

*Harosoy, Lindarin, Amsoy,* and *Hawkeye*—See northern Iowa.

*Ford*—It's best adapted in maturity from north-central to south-central Iowa. About 2 days later than Adams but outyields it by 1 to 2 bushels per acre.

### South-Central Iowa:

*Adams*—Yields well, high in oil and has good lodging resistance. About 2 days earlier in maturity than Ford.

*Ford*—See north-central Iowa.

*Amsoy* and *Hawkeye*—See northern Iowa.

*Shelby*—Best adapted for maturity in south-central and southern Iowa. Matures 2 days later than Ford and has about the same lodging resistance and height. In the northern area of adaptation, Ford outyields Shelby; the reverse is true in the southern area.

*Wayne*—Matures the same as Shelby, a week earlier than Clark. Outyields Ford, Shelby, and Clark by about 3 bushels per acre. Stands slightly better than Shelby and Clark.

### Southern Iowa:

*Adams, Ford, Shelby* and *Wayne*—See south-central Iowa.

*Clark*—About 1 week later in maturity than Ford or Shelby; stands well.

### Disease Resistant Varieties:

*Chippewa 64, Harosoy 63, Lindarin 63, Hawkeye 63* and *Clark 63*. These varieties are resistant to Phytophthora root rot. These "63" and "64" varieties are similar to their counterparts in appearance, maturity, height, lodging and chemical composition. However, their yield has been slightly below their respective counterparts in Iowa where Phytophthora root rot has not been a problem—except Chippewa 64 yields the same as Chippewa.

## Small Grains

### Oat Varieties

The performance of the oat varieties is summarized in the table. No disease was serious enough to cause significant yield losses in oats in 1965. While crown rust was prevalent in some areas, the yield reduction caused by this disease was localized and low for the state as a whole. Since stem and crown rust have not caused appreciable reductions in oat yields since 1957, there may be a tendency to overlook the importance of rust-resistance for successful oat production in Iowa. However, records show that crown rust seriously reduces oat yields in Iowa an average of 1 out of each 3 years.

### Barley Varieties

Most barley produced in Iowa is used as feed for livestock. Some varieties may bring premium prices as malting barley if care is taken in production and harvesting.

Malting varieties—*Larker, Traill* and *Trophy*. Traill and Trophy have rough awns and good straw strength. Larker has

semi-smooth awns and weaker straw. Larker is superior to Trophy, and Trophy is better than Traill in kernel plumpness. All three varieties are resistant to stem rust.

Feed varieties—*Liberty* and *Plains*. Both are high yielding, 6-rowed varieties with plump kernels and smooth awns. Plains is early maturing and has short, stiff straw. Liberty is taller, slightly later in maturity and has moderately stiff straw. Both varieties are resistant to stem rust, and Liberty is resistant to mildew.

## Wheat Varieties

Winter wheat generally outyields spring varieties and has given the most consistent performance in southern and southwestern sections and along the Missouri River bottomlands.

### Winter Wheat Varieties:

*Gage*—High yielding, bearded, early maturing, with short, stiff straw. About like the widely grown variety Pawnee for test weight and winter hardiness. Combines good resistance to leaf and stem rusts and to loose smut. Moderate resistance to soil-borne mosaic and Hessian fly. Acceptable milling and baking qualities.

*Omaha*—Moderately high yielding, bearded, early maturing, short, stiff straw. Similar to Pawnee but has better baking qualities, higher test weight, superior winter hardiness and is resistant to soil-borne mosaic.

*Ottawa*—High yielding, bearded, brown chaff, medium early maturity. Has moderately short and very stiff straw. About like Pawnee in winter hardiness. Resistant to soil-borne mosaic, Hessian fly and leaf and stem rust.

### Spring Sown Varieties:

*Justin, Lathrop, Pembina* and *Selkirk*—Lathrop is nearly identical with Henry, except that it is resistant to Hessian fly. It is higher yielding but produces a poor quality flour and should be used only for feed. Pembina is slightly earlier and more resistant to stem rust than Selkirk. Selkirk has moderate resistance to race 15-B of stem rust and yields well. Justin has improved stem rust resistance and improved milling and baking qualities compared with Selkirk.

## Flax Varieties

Flax, like barley, is grown largely in northwestern Iowa. A new race of flax rust has altered the flax variety picture in the midwest. The following varieties have given good performance in yield trials and are resistant to this disease.

*Bolley, Redwood, Summit* and *Windom*—All are from mid-early to medium in maturity and have been good in seed yields. All are resistant to rust and have shown moderate to excellent resistance to wilt. None are resistant to pasmo, but Bolley and Summit have some tolerance to this disease.

**Agronomic characteristics and crown rust reactions of oat varieties eligible for certification in 1965**

| Variety | Yield | Straw | Test Weight | Reaction to crown rust[1] 1 | 2 |
|---|---|---|---|---|---|
| **Early** | | | | | |
| Bonkee | Medium | Medium | Medium | MR | MS |
| Cherokee | Medium | Medium | Medium | MS | MS |
| Neal | High | Strong | Medium | R | S |
| Nemaha | Medium | Medium | Medium | MS | MS |
| Nodaway | Medium | Strong | High | S | S |
| Peterson 100 | Medium | Medium | Medium | * | * |
| Taylor | Medium | Medium | Medium | R | S |
| **Midseason** | | | | | |
| Brave | High | Weak | High | MR | S |
| Burnett | High | Medium | High | MS | S |
| Clintford | Medium | Strong | High | R | S |
| Clintland 64 | High | Medium | High | R | R |
| Garland | High | Medium | Medium | R | R |
| Goodfield | Medium | Strong | High | R | S |
| McCurdy 2672 | Medium | Medium | Medium | S | S |
| Newton | Medium | Medium | Medium | MR | MS |
| Santee | Medium | Medium | High | S | S |
| Tippecanoe | Medium | Strong | Meduim | MR | S |
| Tyler | Medium | Strong | Meduim | R | S |
| **Late** | | | | | |
| Lodi | High | Medium | High | R | R |
| McCurdy 2485 | High | Medium | Medium | R | R |
| McCurdy 3018 | Medium | Medium | Medium | S | S |

[1]R = Resistant; MR = Moderately resistant; MS = Moderately susceptible; S = Susceptible. First column gives reaction to older, but still prevalent, crown rust races. Second column gives reaction to most common of the newer important races. * = no data.

# Forages

## Alfalfa Varieties:

Iowa's 2.25 million acres of alfalfa provide much of its high quality forage. Varieties of consistently high yielding ability and resistance to bacterial wilt are increasingly important.

*Vernal*—Continues to be outstanding in yield performance with a high degree of winter hardiness and resistance to bacterial wilt.

*Cayuga*—Synthetic developed in New York. Wilt resistant and similar to Vernal in yield performance.

*525*—Synthetic developed from Vernal for better seed production. Forage yields have been similar to Vernal.

*Progress*—Selected from Vernal for high seed production. Performance similar to Vernal.

*WL-202*—Synthetic tracing to Vernal and Narragansett. Performance to date similar to Vernal.

*Cody*—Kansas variety developed from Buffalo and resistant to spotted aphid. Yields similar to Buffalo.

*Ranger*—Winter hardy and wilt resistant. Performance not equal to Vernal.

*Warrior*—Modified Du Puits type with greater winter hardiness and wilt resistance. Yields satisfactory in preliminary trials.

*Other varieties*—For short term stands where bacterial wilt is not a factor, Alfa, Du Puits, FD-100, Orchies and Tuna have produced excellent yields. Where wilt is prevalent, it may reduce stands as early as the second crop year.

## Red Clover Varieties:

Though less acreage is planted to red clover than to alfalfa, many farm operators favor red clover, especially for short rotations in eastern Iowa.

*Dollard*—Resistant to northern anthracnose and best adapted for use in northern Iowa.

*Kenland*—Resistant to southern anthracnose and has shown superior performance in yield of forage.

*Lakeland*—Resistant to northern antracnose and downy mildew; performance is similar to Kenland and Dollard.

*Pennscott*—A variety often less productive than Kenland because of disease damage.

*Common*—Seed of common strains grown for a number of generations in Iowa. Seed produced in other midwestern states and similar latitudes in Canada also is considered satisfactory.

## Sweetclover:

For many years sweet clover has been a leading crop for legume green manure. But weevil-resistant varieties are not available.

*Madrid*—Biennial yellow. Produces excellent yields of nitrogen and organic matter in the first year growth.

## Ladino Clover:

Ladino clover is a large, productive type of white clover. It's best suited for rotation pastures, especially hog and poultry pastures. It doesn't produce well, however, where moisture is limited.

*Merit*—Synthetic variety developed in Iowa from Oregon and northern California certified ladino stocks. Superior in winter hardiness, drouth tolerance and forage yield. Seed supply plentiful.

## Birdsfoot Trefoil:

Birdsfoot trefoil is a deep-rooted, winter hardy perennial legume especially useful in permanent and long rotation pastures. Seedling establishment often is slow, compared with alfalfa or red clover. It's adapted to a wide range of soil conditions. Birdsfoot trefoil grows well in mixtures with Kentucky bluegrass and orchardgrass.

*Empire*—Semi-prostrate in growth habit and most winter hardy of all varieties now available. It is the only variety that will survive continuous grazing.

## Bromegrass:

Bromegrass is a widely adapted, hardy grass for good soils. It does well when grown with a legume, especially alfalfa. Stands without legumes can be stepped up considerably in seed and forage production by applying 60-80 pounds of nitrogen per acre.

Adapted varieties—all similar in performance—are:

*Achenbach, Fischer* and *Lincoln*—Widely grown southern types; tall, leafy and good seed producers under proper management.

*Southland*—A new variety similar in performance to the southern types. Has good spring recovery.

## Orchardgrass:

Orchardgrass is an adapted, vigorous grass which is easy to establish. It's best suited for pasture because of rapid recovery after grazing or mowing. It persists under a wide range of conditions and, with good management, is high in palatability and nutritive value.

*Potomac*—A mid-early variety similar to common orchardgrass in performance and winter hardiness; good in aftermath recovery and improved in resistance to rust.

*Sterling*—A new mid-early variety; superior in forage and seed production and in winter hardiness, drouth tolerance and good stand establishment.

*Common*—Seed from mid-Atlantic or southern Corn Belt states; good in general performance and winter hardiness; mid-early in heading.

All of these varieties are superior to Danish in winter hardiness with Sterling being the most winter hardy.

## Sudangrass and Sorghum x Sudangrass Crosses:

Sudangrass and sorghum x sudangrass crosses are very well suited for providing forage during the summer. They are warm season grasses which grow very rapidly under adequate soil moisture and fertility conditions during June, July and August. These annual grasses can complement cool season perennial grasses which often decline in productivity in midsummer.

*Piper*—Early, rapid in growth and recovery after grazing or cutting; moderately disease resistant and high in yield; low in prussic acid content; well suited for pasture usage.

*Greenleaf*—Late and leafy with juicy stems and sweet forage; satisfactory in yield.

Several hybrid sudangrasses have been developed. Information is too limited on these varieties to make comparisons with older varieties.

Numerous sorghum x sudangrass crosses are available. Their chief advantage over older varieties of sudangrass is their great yield potential. This greater yield potential is best expressed when they are used for green chop or silage. A disadvantage, compared with Piper sudangrass, is their higher prussic acid potential which can cause livestock poisoning. The sorghum-sudan crosses are generally intermediate between sorghum and sudangrass in leaf width, stem size, and number of tillers per plant. They are later in maturity than Piper sudangrass but earlier than most of the forage sorghums. They are more resistant to leaf blight than the older varieties of sudangrass.

## Forage Sorghums:

Several forage sorghum hybrids are available. Some are early. Others are as late or later than Atlas. Forage hybrids may or may not be superior in yield, and some are very susceptible to lodging. Use care in selecting hybrids of suitable maturity. Combine-type grain sorghums can be used for forage, but they usually yield only 50-70 percent as much as the taller forage sorghums.

*Atlas*—High yield, tall, lodging resistant, late variety for early planting (late May) in central and southern Iowa.

*RS301*—A hybrid, leafy, outstanding in yield and lodging resistance and about 1 week earlier than Atlas. RS301 is a male sterile hybrid and produces no seed. All of its nutrients, therefore, are in the stalks and leaves. If a seed crop is desired, mix a small amount (10-20 percent) of seed of a variety of similar maturity with it at planting time to provide pollination and seed set.

*Waconia Orange*—High yielding, lodging resistant, highly palatable, mid-season variety. Suitable for early planting (late May) in northern Iowa and for later planting in the central and southern Iowa areas.

More detailed information on many of the crop varieties listed in this article are available from your county extension director.